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EXAMINER

NGUYEN, DUSTIN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/784,570	Applicant(s) BONDAR ET AL.	
	Examiner DUSTIN NGUYEN	Art Unit 2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,12-18 and 21-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,12-18 and 21-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 4-9, 12-18, and 21-34 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/10/2009 has been entered.

Claim Rejections – 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-9, 16-18, 25-29 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. [US Patent No 5,898,780], in view of Loisey et al. [US Patent No 6,999,912].

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5. As per claim 1, Liu discloses the invention as claimed including a method for providing a Web service by a plurality of domains, through a single IP address, the method comprising:

a) for each of the plurality of domains [i.e. host table contains a listing of domain name of ISPs] [Figure 2; and col 3, lines 9-18], allocating a server having a unique domain name and the IP address, for providing the service, wherein the allocated server is an original, unmodified server [i.e. attempts to match roaming information with server 140] [158, 162, Figure 6; and col 4, lines 46-61];

b) providing a wrapper, the wrapper being a software module for intermediating between a client of the service and the server providing the service via a standard communication protocol for communicating with the server providing the service [Figures 1-3; col 2, lines 37-52; and col 2, lines 66-col 3, lines 31];

c) upon receiving a request for connecting a client to the server in order to provide the service [i.e. user logs in to the local ISP] [80, 84, Figure 4; and col 3, lines 32-37]:

(i) identifying the target domain name of the request by interacting between the client and the wrapper via the standard communication protocol, wherein the target domain name and the user name are embedded in a single command, separated by a symbol that is permitted by the standard communication protocol, wherein the symbol is at least one character that does not conform with the standard characters allowed in a username in the standard communication protocol, wherein the username phrase is one of "user%domain" and "domain%user", in which "user" is the username, "domain" is the domain name, and "%" is any symbol that does not conform to the standard communication protocol [i.e. acceptable user login format of

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username@userdomain] [Figures 4 and 6; col 3, lines 31-col 4, lines 4; and col 4, lines 43-61].

(ii) mediating the interaction between the wrapper and the server providing the service which is associated with using the target domain name by the standard communication protocol [i.e. attempt to identify server from the userdomain information] [Figures 7 and 8; and col 5, lines 6, lines 48];

(iii) establishing a communication channel between the server and the client through the wrapper, such that the wrapper receives commands from the client using a modified protocol [i.e. receive login format such as username@userdomain] [col 3, lines 31-46; and col 5, lines 5-22], and the server utilizes the standard communication protocol to receive the client requests [Figures 1-4; col 3, lines 53-67; and col 4, lines 50-60].

Liu does not specifically disclose

(iv) keeping the wrapper active only until the requested server is identified, and the communication is handed to the requested server, and then terminating the wrapper;

starting a data connection between the client and the original, unmodified server to receive and respond to the client requests directly using the standard communication protocol; and

(v) allowing the original, unmodified server to provide the service to the client.

Loisey discloses

(iv) keeping the wrapper active only until the requested server is identified, and the communication is handed to the requested server, and then terminating the wrapper; (v) starting a data connection between the client and the original, unmodified server to receive and respond

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to the client requests directly using the standard communication protocol [i.e. service provider communicates with user's computer] [530-590, Figure 4; and col 14, lines 65-col 16, lines 19]; and (vi) allowing the original, unmodified server to provide the service to the client [i.e. terminal server provides opens dialog with user's computer] [575, Figure 4; and col 15, lines 60-65].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Liu and Loisey because the teaching of Loisey on direct communication between the terminal server and user's computer would enable to reduce communication overhead and increase system performance.

6. As per claim 4, Liu discloses wherein the Web services are any of POP3, SMTP, MIRC, Telnet, SSH, Rtelnet, and Shell [Figure 8; and col 6, lines 17-32].

7. As per claim 5, Loisey discloses wherein each of the domains refers to a different Virtual Dedicated Server [col 3, lines 49-55].

8. As per claim 6, Liu discloses the IP address is associated with a computer system running any dialect of Unix, Solaris, Linux (Red Hat, Debian, SuSE, FreeBSD, etc.), AIX, HP/UX, Tru64, or Irix [col 7, lines 13-15].

9. As per claim 7, Loisey discloses wherein each domain has its own instance of the server, the instance being a virtual server [col 3, lines 49-55; and col 14, lines 20-35].

10. As per claim 8, Loisey discloses wherein multiple servers providing services to multiple clients for at least some domains share the same disk space [col 4, lines 17-26 and lines 41-60].

11. As per claim 9, Loisey discloses wherein only one instance of a server resides at a Host, and is referenced by hard links from the domains [Figure 3; and col 6, lines 47-col 7, lines 22].

12. As per claim 16, Liu discloses wherein the same encryption key is used for all domains on each Host [col 7, lines 7-17 and lines 61-67].

13. As per claim 17, Loisey discloses wherein the wrapper is provided with information related to secured services of the target domain in plain text [col 12, lines 21-25].

14. As per claim 18, it is rejected for similar reasons as stated above in claim 1.

15. As per claim 25, it is rejected for similar reasons as stated above in claim 16.

16. As per claim 26, it is rejected for similar reasons as stated above in claim 17.

17. As per claims 27-29, they are rejected for similar reasons as stated above in claims 7-9.

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18. As per claim 34, Loisey discloses wherein the services are any of HTTP and FTP [col 9, lines 24-40].

19. Claims 12, 13, 21, 22, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. [US Patent No 5,898,780], in view of Loisey et al. [US Patent No 6,999,912], and further in view of Goyal et al. [US Patent No 6,976,258].

20. As per claim 12, Liu and Loisey do not specifically providing a replacement shared library including additional functionality compared to the original shared library to which the standard communication protocol refers. Goyal discloses providing a replacement shared library including additional functionality compared to the original shared library to which the standard communication protocol refers [i.e. pointer for insert the object code] [col 8, lines 36-col 9, lines 37]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Liu, Loisey, and Goyal because the teaching of Goyal would enable guaranteeing quality of service to virtual hosts servicing client requests to multiple network addresses on a single physical host computer [Goyal, col 1, lines 9-12].

21. As per claim 13, Goyal discloses wherein the additional functionality of the replacement shared library is added to the original shared library by hooking [i.e. dynamically link to the operating system as a module] [col 8, lines 19-35].

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22. As per claims 21 and 22, they are rejected for similar reasons as stated above in claims 12 and 13.

23. As per claim 30, Goyal discloses wherein the wrapper provides a buffer to each socket for retaining temporarily information received from a client [col 11, lines 60-col 12, lines 6; and col 15, lines 40-55].

24. As per claim 31, Goyal discloses the wrapper provides servers hosting the domain with additional functionality by hooking a replacement shared library to an original shared library of the standard communication protocol [i.e. dynamically link to the operating system as a module] [col 8, lines 19-35].

25. Claims 14, 15, 23, 24, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. [US Patent No 5,898,780], and in view of Loisey et al. [US Patent No 6,999,912], and further in view of Goyal et al. [US Patent No 6,976,258] and Boucher et al. [US Patent Application No 2008/0126553].

26. As per claim 14, Liu, Loisey, and Goyal do not specifically disclose providing a buffer to each socket, for retaining temporarily the information received from the client, and reading the data from the buffer if it is not empty, or from the socket if the buffer is empty. Boucher discloses providing a buffer to each socket, for retaining temporarily the information received

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from the client, and reading the data from the buffer if it is not empty, or from the socket if the buffer is empty [paragraphs 0098 and 0101]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Liu, Loisey, Goyal and Boucher because the teaching of Boucher would enable to maintain information in a correct and consistent manner.

27. As per claim 15, Goyal discloses ignoring any write command until the buffer is empty [i.e. lock] [paragraphs 0211 and 0524].

28. As per claims 21 and 22, they are rejected for similar reasons as stated above in claims 14 and 15.

29. As per claims 32 and 33, they are rejected for similar reasons as stated above in claims 14 and 15.

30. Applicant's arguments with respect to claims 1, 4-9, 12-18, and 21-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Dustin Nguyen/
Primary Examiner, Art Unit 2454